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EDITOR.

Vol. XXVIII. Oct. 29, 1891. No. 18.

Editorial Buzzings.

The Nearest Dream recedes unrealized.

The heaven we chase,
Like the June bee
Before the school boy,
Invites the race,
Stoops to an easy clover,
Dips—evades—teases—deploys—
Then to the royal clouds
Lifts his light pinnace,
Heedless of the boy;
Staring, bewildered, at the mocking sky.
Homesick for steadfast honey—
Ah, the bee flies not
Which gives that rare variety.

Granulated Sugar made from beets is not considered safe Winter food for bees by the *British Bee Journal*. What is the opinion of those who have used such in America? We would like to hear from those who have experimented with it.

The North American Bee-Keepers' Convention will be held at Albany, N. Y., Dec. 8 to 11. Reduced rates on all the trunk line railroads are secured. Read the notice on page 566.

Prof. Cook expects to spend the Winter in California. Mr. A. I. Root having been advised by his physician to take a rest for 3 months, has arranged to go with Prof. Cook and his family. In a letter the Professor makes these announcements about the trip:

DEAR MR. ROOT:—We arrive at Salt Lake Dec. 3; convention at Salt Lake Dec. 3 and 4; or if for only one day, Dec. 4. Leave Salt Lake Dec. 5; arrive at Reno, Nevada, Dec. 6; leave Reno Dec. 8; arrive at Colfax Dec. 8; stay two days; leave Colfax Dec. 11; arrive at Sacramento Dec. 11; call a convention for Sacramento Dec. 16 and 17. Do you like this? Can you not arrange for the meetings at Salt Lake, Utah, convention Dec. 3 and 4, and Sacramento Dec. 16 and 17? We go to Los Angeles Dec. 24. Why not arrange for a convention at Los Angeles about Jan. 6 and 7? It will be very pleasant to meet them, and they will be glad, I think.

California apiarists will be much pleased to meet these fellow laborers. Prof. Cook will interest them, either in the parlor, in the convention, or on the platform. He is an interesting speaker, and a charming gentleman.

As Mr. Root made the apiarists of California a visit so recently, they know him, and have taken his measure as a gentlemanly companion, a writer and speaker—but his very recent illness has, no doubt, weakened his energies, and they must treat him tenderly, for he is to take this trip as a *rest*, and a change of air for general recuperation.

The BEE JOURNAL wishes them all a safe journey and a pleasant time.

A Bird was found rolling about in front of a strong colony of bees by Mr. R. R. Godfrey, at Flaxton, England. He writes to the *British Bee Journal* that she breathed her last in great agony, some 2 or 3 minutes after being freed from the bees. There were some scores of them stinging her. Evidently, she had imprudently ventured to trespass upon the rights of the bees.

Bees Fly Rapidly, their wings vibrating at about 190 strokes in a second, when they mean business. This would give them a rate of about a mile per minute; but 10 miles an hour is about their speed in windy weather.

For speed, commend us to the wild fowls. Of these the canvas-back duck is "the racer," when it shows its power of flight. When taking it easy, this duck is said to go through the air at about 80 miles per hour; but when it goes in for a race, it puts 2 miles behind it every minute, and does it easily.

Carpenter Bees and their wooded cells are thus described by Prof. A. J. Cook, in *Gleanings*:

The handsome bee received from F. I. Tyler, of Bakersfield, Calif., is a species of *Xylocopa*, or carpenter bee. It is as yellow as the yellowest Italian, and is a beautiful addition to our cabinet. It is a new species to our collection, if not to science. I wish I could get eight or ten more like it.

In its long abundant hair and yellow color it differs from most carpenter bees, and reminds us of the bumble-bees. Carpenter bees are usually black, blue or purple. The habits of these carpenter bees are well known. They bore into wood to form their cells, store these wooden cells with pollen, and lay their eggs in this, so that, as soon as the eggs hatch, the little carpenters can have bread (bee-bread) close at hand.

We see our friend Aspinwall was not the first to construct wooden cells. These bees frequently tunnel into cornices and window-casings, and do no little mischief. I have frequently recommended the filling of the tunnels with an ointment made of either lard and kerosene oil, or sulphur and kerosene oil. This always drives them away at once. I have never known it to fail.

The bee sent is a female. I should like very much to secure a male, if no more.

Herman F. Moore, whose advertisement appears in this JOURNAL, was a member of the firm of Moore Bros., bee-keepers at Tiffin, Ohio, and is duly qualified to take care of any Chicago business, large or small, that may be intrusted to him.

At the Head.—We were not flattered by the following item from Dr. Miller in *Gleanings*, which says:

Charles Dadant, in *Revue Internationale*, says that the United States stands at the head in apiculture among all nations, because of the study of bee-books. This country stands at the foot in the matter of bee-keepers' societies. We might learn something from other nations which leave us clear out of sight in numbers.

Dr. Miller states it very fairly. Here in America, apparently, apiarists belong to the rushing, dashing, pushing, business portion of the community, and they seem to have but little time to devote to conventions. They talk well, think rapidly, and are very practical in their plans—but they have no time to attend conventions!

In Europe, apiarists generally belong to the upper classes, and have plenty of time to devote to their chosen pursuit. They are more of a social and pleasure-loving disposition, and while they are not quite as demonstrative as Americans, their friendships are more enduring. We wish that their excellent examples in the matter of apiarian societies might provoke emulation here.

La Grippe has crossed the Atlantic and struck New England. A correspondent from Connecticut writes:

Never since 1868 has such suffering prevailed here. Nine-tenths of our people are laid up with epidemic influenza. Drug stores and local physicians are dealing out quinine in great quantities, and the ravages of *la grippe* of two years ago are pushed into the shade. Farmers, mechanics, professional men, and even idlers are sneezing and coughing, many of them being confined to their homes.

It behooves all to watch closely, and not to let a cold become seated. Watch its first stages, and arrest it there, if possible.

Clubs of 5 New Subscriptions for \$4.00 to any addresses. Ten for \$7.50.

Stray Straws from Gleanings for Oct. 15, are as follows, from the pen of Dr. C. C. Miller, and they are very interesting, too:

Shake hands with me at Albany.

Sunday seems to be the favorite day for bee-conventions among the Germans.

Good honey should be a little more than a third heavier than water.

A remedy for stings, given in *Leipziger Bienenzeitung*, is to cut an onion in two and apply the cut surface to the part stung.

Bees fly 60 to 100 miles an hour under favorable circumstances, D. A. Jones thinks. M. Teynac, when using bees as carriers, found a loaded bee to make 3 miles in 15 or 20 minutes.

A mellilot stalk, that I found growing in a clay bank on the roadside, measured 10 feet 4 inches in height. I can easily believe that a few years' growth of such plants in clay land would make it quite fertile.

Record-books have one advantage that is not to be despised. They are safe against the meddling of other people, animals, or winds. One year I had manilla tags on all my hives. Some person or thing, I never knew what, tore off nearly every one. If my only records had been on them, it would have left me in bad shape.

Robbing bees can be stopped, even when thoroughly under way, by wet straw or hay at the entrance. Pile it a foot thick all about the entrance, and then pour on water until everything is flooded. I have tried it a number of years, and this year saved a queenless colony thus, when robbers were at it wholesale. The robbers did not attack it afterward.

Bees as Dispatch Carriers.—A Frenchman, M. Teynac, has been experimenting, and seriously considers the advisability of substituting bees for carrier pigeons in carrying messages. A tiny piece of paper is pasted on the back of the bee, with a cipher number on it, and, when the bee returns to its hive, it can enter only through round perforations which will not let its paper through, so that the message is easily found.

Swarming was considered a desirable thing 50 years ago. Every year the desire for non-swarming bees increases. If all who are anxious for non-swarmers would breed only from those colonies which swarm least, it seems reasonable

to suppose that some one of the number, in the course of a few years, would strike a strain that would be valuable in this respect. Because many have failed is no reason that some one else may not succeed. It is worth much trying.

The Punic queen that I succeeded in getting to lay seemed to be doing a good business, but suddenly disappeared, I do not know why, and the bees have raised a successor from her brood. The curious part of it is, that, of the progeny of the Punic queen (she was fertilized in my apiary), not one in 500 shows any black blood. A careless observer might readily take them for pure Italians. I still think it was a big thing, to get a virgin queen from England, and get her to laying.

Metheglin.—Here is a recipe for making this delicious beverage, given in the *British Bee Journal* for last month:

Save all scraps from the extractor, and spare pieces. At the end of the season collect all broken combs which are clean and free from mould. Put them into a copper with sufficient water to cover them, boil until the combs are dissolved. Get a large shallow pan and strainer with a cloth in, bail out into the cloth, and wring the liquor well out from the cloth, and empty the wax back into the copper; repeat this until all is used from the copper. Let this stand all night; when cold take off the wax. Now put all the liquor back into the copper again, and boil for one hour. Add some ginger and a little nutmeg, according to the quantity of liquor made. Put in about half or three-quarters of a pint of "yeast;" stir up well; when cold put in small cask or stone bottles. Save sufficient liquor to fill up the cask, as it wastes in fermenting. When fermentation is over, bung up; it will then keep for years.

When Writing a letter be sure to sign it. Too often we get letters with the name of the post-office, but no County or State. One such came recently, and we looked into the Postal Guide and found there were places by that name in 13 States. That order for goods will have to wait until another letter comes to give the proper address. Be sure to stamp your letter, or it may go to the dead letter office.

Big Model of a Honey-Bee.

—The model of a honey-bee, measuring $4\frac{1}{2}$ feet from head to sting, and 6 feet across the wings, has been received from Paris by the Biological Department of the University of Pennsylvania. It is intended for the instruction of the students.

The insect is perfectly articulated, and the wings, head, thorax, and abdomen can be taken apart with the fingers. Moreover, the head may be opened so as to display the brain within. Every organ, artery, sinew, and tissue has been delicately reproduced, and the bee is to be dissected at lectures by Prof. Charles S. Dolley, for the information of the students. Emile Deyrolle is the maker of this singular model.

Agricultural Experiments

are now made in each State annually, and this is what an exchange remarks concerning some of them:

A part of the \$15,000 annually appropriated by Congress for agricultural experiments in each of the States, is applied in Michigan to determine whether or not the light, sandy, pine barrens of the northern part of the State can be cultivated profitably. Thus far experiments do not justify the State authorities in advising farmers to occupy these large tracts for agricultural purposes.

As a result of the increased interest in agricultural colleges, Michigan has lost 14 college professors since May 1. At least 50 per cent. of the graduates of the State college at Lansing follow agriculture as a profession.

In support of the belief that the college has greatly benefited the farming interests of Michigan, it is asserted that its experiments in the line of insecticides alone have been of ten times greater benefit to the farmers of the State than the entire cost of the college.

Frank Leslie's Weekly will certainly interest every Methodist in this country, for it gives on its front page, in most attractive style, character sketches of leading scenes at the great Ecumenical Methodist Council now being held at Washington.

Lightning killed three men while they were witnessing the manipulations of bees at Lacey Green, England. The *British Bee Journal* gave the following account of the accident:

The bee-tent of the British Bee-Keepers' Association was sent down to the show in question, Mr. Baldwin, the well known expert, being engaged to lecture and manipulate the bees therein. The tent had already been erected, and about 3 p.m., a skep of bees for driving purposes was brought on to the ground, and placed in a convenient spot beneath a cherry tree, a few yards away from the tent.

Mr. Baldwin went forward to release the bees prior to using them in the course of his lecture; he lighted his smoker, and was in the act of stooping down to untie the hive from its floor-board, when there was a flash, and in an instant 14 persons who had gathered beneath the tree were struck down. Three men were killed, and several others more or less seriously injured; among the latter was Mr. Baldwin, who probably escaped instant death through his stooping position at the moment; the three men killed having stood close by, watching his movements at the time of the occurrence.

The narrow escape our friend Baldwin had may be judged from the fact that he was rendered insensible for about an hour, and it was found that the electric fluid had struck him on the side of his head, which was discolored for some distance below the burn. A box of matches he had in his pocket at the time, was also ignited. He was got home next day, and though still weak, besides being a good deal prostrated, is getting on very well, and hopes soon to be quite right again.

The Buckeye State comes imposingly to the front in the November number of Frank Leslie's *Popular Monthly*. The opening page is adorned with a new and admirable portrait of Senator John Sherman, who contributes a scholarly and thoughtful article upon "Ohio; Its History and Resources."

If You Have any honey to sell, get some Honey Almanacs and scatter in your locality. They will sell it all in a very short time.

Extracted-Honey in pails has heretofore been classified for freight charges at double first-class; while "honey in the comb" was classed as "first-class." This was manifestly unjust, and Mr. Oliver Foster, of Mount Vernon, Iowa, sent a can of honey, with a statement of the facts in the case, to Mr. J. T. Ripley, the Manager of the Western Freight Classification Committee, and obtained a *ruling* that in future the Western railroads will receive



FIG. 1.

"granulated honey in pails, boxed, at owner's risk (O. R.) as second class."

Of course, no liquid honey should ever be transported by freight, unless it is in barrels, kegs, or other tight packages, to prevent leakage.

This is an important matter, and the thanks of honey-producers are due to

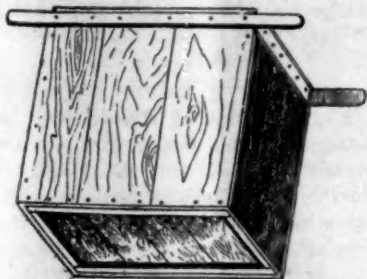


FIG. 2.

Mr. Foster for obtaining this ruling, which is now in force over "50 or more railroads throughout the West." We have had several interviews with Mr. Ripley, and have always found him to

be courteous, and inclined to do the fair thing.

Mr. Ripley asked Mr. Foster to describe more fully his pails and the wooden box containing them: This was done as follows: Fig. 1 shows one box to contain a set of pails (one on the top of the others) with rope handle. The sides are $\frac{1}{4}$ inch thick; the bottom and top are $\frac{3}{8}$ of an inch thick.

Fig. 2 shows a box to contain four sets of pails, about 16 inches square; bottom and sides $\frac{1}{4}$ to $\frac{3}{8}$ of an inch thick; handles and bottom strips $\frac{3}{8} \times 1\frac{1}{2}$.

Mr. Root, in the last issue of *Gleanings*, asks this suggestion:

Now, will not some one get up some plan whereby we can granulate liquid honey on short notice, even in warm weather? Consumers are being gradually educated to use this granulated honey, and very many prefer it in that form to any other, to spread on bread and butter.

Here is a chance for inventive-genius, and we hope that an easy and sure method of granulating honey will soon be discovered.

Honey-Dew.—A commission man writes that he is "being imposed upon by bee-keepers who forward honey-dew without stating the contents of the barrels." He adds: "We dislike to sell this to our trade, because of its ruinous results, and hope you will try to prevent such dishonorable actions." *Either this must cease, or the pursuit will be ruined!* This warning is timely, and should be heeded by all.

The Wintering Problem in Bee-Keeping; an Exposition of the Conditions Essential to Success in the Winter and Spring Management of the Apiary, by G. R. Pierce. This is the title of a new pamphlet of 77 pages, just issued by the author, who has had 25 years' experience in bee-keeping, and for the past 5 years has devoted all his time and energies to the pursuit. Price, 50 cents. For sale at this office.

African Bees.—A correspondent in the *British Bee Journal* asks the editor, Mr. Thos. W. Cowan, to write an article on African bees, and here is what he says about them :

Among the African bees with which we are acquainted, are those from Algeria, Morocco and Tunis—all varieties of *Apis mellifica*. They are prolific black bees, said to be good workers, but which have not sustained their reputation when introduced into Europe. Queens of any of these varieties could be purchased for a few francs, and some years ago Algerian queens were offered for ten francs apiece by M. Feuillebois at Beni-Amran.

The variety cultivated by the Kabyles is shiny black, and the workers much smaller than the average European bee; the drones, however, are quite as large. The Kabyles inhabit the mountains lying towards the Desert of Sahara, where they live in small villages, and derive a considerable income from honey, and more particularly from wax. These bees are called *thizizoua thik' arrin*, and are cultivated in cylinders of cork-bark, basket-work, or earthenware.

Some of the natives have as many as 500 of such hives of bees. They were first imported into France in 1874, and, by their behavior, showed that they came from a warm climate. They are great propolisers, which shows that they are not used to cold. Although quiet at times, if stimulated they become very savage, and not only attack persons, but even enter the houses in their vicinity. They have not proved satisfactory in Europe, and we know no one now who cultivates them.

We know nothing about the so-called Punic bees, and can give no information as to their value. Possessing as we do one of the largest libraries of bee literature in the kingdom, it is strange that we have never found such a race alluded to. The word *Punic* means 'faithless, treacherous'—neither of which should be considered good qualifications for bees. Punic bees are said to come from Africa, but the only varieties of African bees we know of are those alluded to above.

In reply to another correspondent, Mr. Cowan writes thus :

Our correspondent says the word Punic does not necessarily mean treacherous, or faithless, but he does not say what else it does mean. We can supply

the omission, as it may interest some of our readers.

It is derived from the Latin *punicus*, meaning of, or pertaining to, the Carthaginians; deceitful, treacherous, faithless. *Punica fides*, Punic faith, the faith of the Carthaginians; meaning perfidiousness, unfaithfulness, treachery. *Punica fides* was applied by the Romans to the faith of the Carthaginians because they believed in the perfidy of the latter. Are we to suppose a similar belief has given the name of Punic to bees?

We repeat that we know no such race, and the only African bees we know of are the varieties from Algeria, Tunis and Morocco, which we described.

The Punic bees have been styled *Apis niger*, and although we are tolerably well acquainted with the bees of Africa, we know no such species, and have strong reasons to doubt the existence of such a species.

Our correspondent has not adduced a single fact to prove that what he calls Punic bees are a distinct race or species, or that they may not be the common black bees, which we have mentioned as cultivated in the countries of Northern Africa, with which bees we are acquainted, and which have, as we stated, not sustained their reputation when imported into Europe.

It is not enough to assert that there are such bees; we want corroborative evidence to prove it, and until such proof is forthcoming, we must decline to recognize such a species as *Apis niger*, alias Punic bees.

As the Time for the Columbian Exposition approaches, the interest in the great city of the World's Fair increases. The *Cosmopolitan* for November devotes 27 pages to a very full descriptive article by Capt. Charles King. The article is illustrated with 27 sketches from the pens of the two most famous artists in the line of architectural work in this country—Farry Fenn and A. F. Jacasssy. It contains an immense amount of information regarding the city, and will serve as a guide to those who are looking forward to a visit to the Exposition.

Ship comb-honey now—before cold weather comes. Combs are very brittle in frosty air.

Queries and Replies.

Progeny of a Mismatched Queen.

QUERY 790.—1. Will a mismatched Italian queen produce pure drones? 2. If so, why will they produce pure drones, and hybrid workers.—J. G. C.

1. I doubt it. 2. I do not know.—C. H. DIBBERN.

I do not know; scientists must answer that.—Mrs. L. HARRISON.

1. Practically, yes. 2. Read up on this point.—G. M. DOOLITTLE.

1. Our best authorities say so. 2. Consult Cheshire.—J. M. HAMBAUGH.

1. Yes. 2. Because no impregnation is necessary to produce drones.—EUGENE SECOR.

1. I believe not, but according to the Dzierzon theory they should.—G. L. TINKER.

1. If pure, I think she will. 2. Because the egg is impregnated to produce females, and not to produce males.—A. J. COOK.

1. Yes, if she is of pure descent herself. This is proven. 2. Study the question of parthenogenesis, in the books.—DADANT & SON.

1. Yes. 2. Procure the little pamphlet containing the Dzierzon Theory, and you will get a full answer to this question, and much information beside.—C. C. MILLER.

1. The scientists say she will. 2. Because all eggs impregnated as a result of the mating produce workers, and those not so impregnated produce drones.—R. L. TAYLOR.

1. Yes; pure enough for all practical purposes. 2. If you do not know, invest in some good bee-book, and study just a little. Space here does not admit of a full answer.—A. B. MASON.

1. Yes. 2. Because the eggs that produce drones derive their life wholly from the mother. They are the progeny in the male line, as well as the female, of their grandfather.—M. MAHIN.

1. She will, if she herself is pure. 2. Get some book treating on the natural history of the honey-bee, and read up on parthenogenesis, and on impregnation of the queen.—J. P. H. BROWN.

1. Yes. 2. Because the drone's birth is not dependent on, nor does it partake of the mating. So say our naturalists, and puffy queen-breeders have not as yet been able to refute that statement.—JAMES HEDDON.

1. In my opinion she will not. This matter has been thoroughly discussed during the last 15 years, with the result that some persons believe she will, and others that she will not, and there the matter stands. I am not ready to say I am right, though I believe I am. 2. They produce impure workers because the worker eggs are fructified from the drone sperm, while the drone eggs are not. The eggs of a virgin queen always produce drones. This matter is fully discussed in the "Dzierzon Theory" of parthenogenesis, which read.—J. E. POND.

How often this question has been asked! The theory is that the drone honey-bee is strictly the son of his mother. That the drone has no father at all. You may demonstrate to your own satisfaction, as I have done, that the queen honey-bee is capable of producing live, kicking drone progeny *without knowing a male*. But no one has as yet proven, by practical testimony, that such drones are capable of propagating the race. All my experiments in this line tend to show that drones of an unmated mother are impotent, and if this is ever demonstrated, it will unsettle the "purity" theory.—G. W. DEMAREE.

1. Yes, if the mismatched Italian queen is the progeny of a purely fertilized mother. Drones are in no way dependent upon the mating of their mother. They are her offspring alone, and can be produced either before or after her fertilization; and even after her fertility ceases, when she can no longer produce worker eggs, by reason of age, etc., she can lay drone eggs, which will produce drones. Such drones must be capable of perpetuating the race, or else Nature has gone out of her regular course to preserve the race, without accomplishing her design. 2. While the mismatched queen can produce pure drones—if she is of pure extraction—her worker progeny are the result of her mating with the drone, and unless the father is a pure-blood, the workers will also be impure, *i. e.*, hybrids.—THE EDITOR.

Supply Dealers desiring to sell our book, "Bees and Honey," should write for terms.

Topics of Interest.

Maine Bee and Honey Exhibit.

W. H. NORTON.

The Maine State Fair came off last month, and the exhibit of bees and honey and aparian utensils was quite a feature of the fair, and proved to be very attractive. The following concerning it appeared in the *Lewiston Journal*, and will no doubt be interesting to the readers of the *AMERICAN BEE JOURNAL*, and show what we are doing "away down East," especially as they do not hear from us very often.

Here is the article under the heading of "Pyramids of Honey," and "The Buzz of the Bees at the Fair:"

"Oh, look here Jim, just see the bees a buzzin' there! What do you suppose they are up to?"

"Sh—Sal!"—he said in *sotto voce*—"them bees are makin' honey there like blazes. Good year for bees they say, and that's the way they do it."

Just so, good year for bees—that part of it so—and the bee men are happy.

Passing up onto the second floor of the exhibition building Wednesday afternoon, three-fifths of those met came along smiling, and smacking their lips like kittens cleaning out the cream pitcher.

Whence comes this happy crowd, was asked. "Oh, we have been over to the honey-man's corner. Just too sweet for anything, aren't they?"

"Sure! Sweet? Well, I guess so."

Let us go over there. "Who's that stands smiling by the corner table talking with that Brunswick divine?"

"That! Oh, that's Maine's honey king, E. H. Greeley, of Clinton."

"That so! How much?"

See his great pyramid of honey, piled clear up out of reach. Hundreds of pounds of honey in sections and packages of extracted, clear as amber, and just that tempting tint denoting the sweetest nectar.

Mr. Greeley is happy this year, and well he may be. He over-tops all the honey yields of Maine. Five thousand pounds of the nicest clover nectar. See it piled up beside the wall. And here are samples of the bees which have done this sweet work this Summer.

The first in importance are the beautiful golden Italians; next is an observatory hive of Holy-Land bees—totally

depraved, we believe, though; next comes the Carniolan bees, a kind of boomerang-sort, that haven't much to commend them, if we are any judge.

Here also are queens in shipping cages; beeswax all tastefully arranged, making a neat exhibit.

Next is Mr. J. Pike's exhibit of bees and honey from his farm near Livermore Falls. Mr. Pike has a smaller exhibit, but a good lot of beautiful comb-honey, and honey in bottles.

Here are also samples of honey from different flowers, eight or ten kinds, of as many colors and flavors. Mr. Pike has an observatory hive with bees showing queen-cells. Mr. Pike has a good knowledge of bees, and studies their ways to good purpose.

One of the ingenious bee-men, an inventor, a careful investigator as well as scientific and practical bee-keeper, is Mr. W. H. Norton, of Skowhegan. Mr. Norton has a whole museum of bee-fixings, and will give you a lecture on the application of bee-science any hour in the day, and every time different. His is an inexhaustible fount of bee-knowledge and application of principles, and will broach more practical ideas in ten minutes than the ordinary mortal can digest in ten years.

Norton is working out some problems that will be of great benefit to Maine bee-keepers. In fact, he has already done that, and surprises are yet to come. See his beautiful foundation. The thing was never accomplished before of making 16½ square feet of comb-foundation to the pound. Norton does it, and shows you the machine he does it on, but the sly fellow wisely keeps some of his manipulations of the fine wax to himself.

Mr. Norton runs a good sized apiary, but he does it for experiment largely. If there is a new bee spoken of, Norton gets it. He shows some hybrid Punic bees, which, probably, not one in a thousand who visit the fair ever heard of before.

The largest display of utensils and implements used in handling bees are found with Mr. Norton's exhibit. His new extractor is a model of simplicity and utility. His smoker is an improvement on all before it. His new hive is a masterpiece of simplicity and compactness, good workmanship and practical usefulness. He "takes the cake" on the reversing principle. His sections are of snowy whiteness, and smooth as sand-paper can make them. And so we might go on commenting for an hour

and not tell all about Norton's wonderful exhibit of apiarian fixings.

Passing on to the opposite table, we find Mr. C. W. Costellow, of Waterboro, with a large exhibit of this, that and the other, pertaining to the bee business.

Mr. Costellow has a new double-walled hive, and he has made a good thing. One of its merits is its cheapness, combined with the feature of protection for outdoor wintering. His hive is made of $\frac{3}{4}$ inch stuff, hence, in its double structure is as light as a single-walled hive. Mr. Costellow is a bee-keeper of experience, and has studied the application of practical principles to bee-keeping with good results. He keeps from 20 to 25 colonies of bees, and is well versed in scientific and practical apiculture.

An interesting thing in Mr. Costellow's collection is the alcoholic specimen of bee-larvæ in all stages of transformation, from the egg to the mature larvæ. He has specimens of foundation from bleached wax, sections and section-cases; the latter in divided form, containing six sections each. With the exhibit are samples of all the bee-periodicals published in this country—something quite unique.

Dennett Cotton, of Norway, makes a large exhibit of bee appliances. He has also Carniolan bees, and what he calls the golden-banded Italians. He has dovetailed pine section-cases, one-piece sections, and flat-bottomed foundation.

Perforated Zinc Queen-Excluding Boards.

F. H. CYRENIUS.

For excluding the queen from the sections it is of no account to me, which was, if I am correct, its first cause of invention.

Having already described its use for finding or separating the queen from the colony, by shaking the bees upon a sheet between two hives, or arranged in a hollow box for the purpose of allowing the workers to pass through, leaving the queen behind, is a satisfactory way of finding shy queens.

To arrange for non-swarmer extracting: just before swarming, divide the bees and brood, just as you would to make a swarm—placing one-half the bees and brood in a new chamber, filling vacancies in both hives with empty comb or foundation, and place one above the other, with a sheet of zinc between. The queen must remain in the lower hive. This operation will prevent all

swarming if done at the proper time, until the lower apartment is again filled with brood.

We have taken nothing away from them, they have room for eggs below and honey above in the empty combs or foundation, and as the brood hatches in the upper chamber, they will have more room for honey. At the time of extracting again, take about one-half of the brood from the brood-nest, place it in the chamber, and change from the chamber of the brood-nest the empty combs.

This principle of drawing part of the brood from the brood-nest, and replacing it with empty comb or foundation at proper intervals, with me entirely prevents swarming, and by placing the removed brood in the upper chamber, keeps the colony very strong, and in good working order. In a heavy flow of honey, add an extra chamber, if necessary.

I heartily recommend Mr. Doolittle's plan of rearing queens in the upper chamber, and, to this end, place the chamber with the entrance opposite to the lower entrance, and nearly all the queens hatched will be fertilized, and begin laying in the brood-chamber, at which time it may be placed on a new stand, and you have a fine "swarm" with a young laying queen. Repeat the operation again if more increase is desired.

Cannot this principle be carried out for comb-honey, viz.: Draw part of the brood from the brood-nest, fill out with comb or foundation as before, put on the sections, place the brood on the top of the sections, or at the side of the parent colony, and occasionally shake the bees in the old hive, or allow them to enter, as they hatch and are old enough, through a bee-escape, carrying out the same principle of removing the brood from the brood-nest to prevent swarming, and returning the hatching bees to keep up the full strength of the colony.

The above methods are for out-apiaries. I can only speak for the extractor-method with experience, which is perfectly satisfactory to me.

My next progressive step, with the aid of zinc, is to assist in queen rearing.

How annoying it is to find one queen, just hatched, out with a swarm, or all other cells torn down.

I made a number of zinc cages, the object of which was to allow the bees to pass out and in, to give the enclosed cell all necessary care, and to have caged all the queens hatched.

A cell of any age may be placed in the cage, upon wire arranged for the pur-

pose, and by dividing a Langstroth frame into three sections, by two strips horizontally nailed into the frame, we can place 6 cages upon each section, making 18 in each frame. So you see a great many queens can be reared in one hive at a time, and you may get them as desired.

Last season was my first experience with them, and the result was very satisfactory. Any cells I wished to preserve were placed in a cage, and as they were hatched I could select or reject them, which is an advantage I did not appreciate until I used the cage.

My next plan was to make a section with movable tin slides and zinc bottom, with a fly-hole out of section case, and by the use of one "box" we can rear queens and have them fertilized, and begin to lay, caged in a single "honey-box."

Next came to my mind the idea of a zinc division-board, thinking that it would be more effective for many purposes than solid wood. For fertilizing queens we have only to insert the zinc board between the outside comb, with cell or virgin queen with entrance provided, and we soon have a laying queen. Thus we can, with a few hives, arranged in this way, secure the fertilization of a large number of queens in a short space of time, without interfering with the full hive any more than to rear a queen in an upper chamber.

Two or more queens may be kept in one hive by the use of zinc division-boards. The boards may be made of very thin lumber with narrow strips of zinc, to save expense.—*Read at the New York Convention,*

Bee-Keepers' Convention in Germany.

STEPHEN ROESE.

September 6, 7 and 8 were the days appointed for the gathering of the bee-keepers of the German Central Verein, in Eger, a noted city in Germany.

Bee-keepers in Germany are a class of people greatly honored, and the city authorities usually furnish halls for their meetings free, and the Burgomaster, in the opening address, welcomes the guests on behalf of the city.

Over 2,000 people were in attendance, including about 60 exhibitors of bees of all races, honey of all kinds, wax, books, and apiarian supplies of all descriptions, all of which, amounting to 3,000 lots, were sold before the awarding of the prizes began.

The city of Eger gave three prizes—25, 15 and 10 silver gulde (a silver gulde is about 66 cents in American money); Obman Herr Krader, a silver coffee service; and the German Central Verein, 3, 2 and 1 ducates; the German Landwirtschaftli die Central Verband, 60 gulde. In all, 30 prizes were given, the smallest being 1 ducate.

On Saturday, the day before the opening of the Imker gathering, the majority of the houses were decorated with flags—black and yellow, the Austrian colors, and black, red and yellow, the German National colors. In the evening, the bee-keepers met in the Rathskeller, to nominate committees.

On Sunday, at 10 a.m., the exhibition was opened by the Burgomaster, after which the Eger Saengerbund gave a charming choral. Burgomaster Staake addressed the meeting, and welcomed the bee-keepers on behalf of the city.

German bee-keepers are a very enthusiastic people, and whatever they undertake to do is never done by halves. Their regulations are perfect, and young and old engage in the work, determined to succeed. Weekly meetings are held with due regularity, and they deserve praise for their perfect organizations, in sections, under an Obman, Vereine, and Central Vereine.

The annual honey production is a marvel, when the density of the population is considered, and the consequent limited bee-pasturage, and if America is not on the alert, Germany will take the lead in this respect.

Maiden Rock, Wis.

Preparing Bees for Winter.

B. TAYLOR.

The wintering problem is the most difficult and important one connected with bee-keeping. There is doubtless more loss from failure to winter successfully than from all other causes combined; and it is conceded by the most successful apiarists that it is indispensable to have bees properly prepared for the long season of rest; and to have them prepared properly we must begin early, before the weather becomes too cold, and the bees have settled into a semi-dormant state; for neither smoke nor other means will enable us to handle them properly when in such state. It is also agreed that while clamps and outdoor wintering is sometimes quite successful, still cellar wintering is far safer as well as cheaper.

Those who have large numbers of colonies should have a special apartment for their bees. It may be a room of suitable size partitioned off from their vegetable cellar, or one properly constructed outside, for their especial use. It may be made in any manner most convenient, but so constructed that it would winter vegetables without freezing. The small bee-keeper can set his few colonies in the house cellar, in some convenient corner, and protect them from too much light by hanging up some old carpets, bed quilts, or similar articles. But unless the hives are prepared in the proper way no kind of repository will winter bees without loss.

It must also be understood that sufficient food is of prime importance. Where hives contain less than 20 pounds of sealed stores they should be fed by giving them sealed combs of honey, if we have such; if not, a syrup made by mixing 10 pounds of water with 20 pounds of granulated sugar, and heating it to the boiling point, makes a first-class Winter food. At the present price of sugar, this syrup will cost not more than 4 cents per pound, and 12 pounds, costing 50 cents, will, when added to the small store already in the hive, winter a strong colony, when placed in a cellar, and kept at a temperature of from 40° to 45°. Surely, no humane man will let these industrious and profitable insects perish for want of this small outlay.

There are many ways of giving this food, the cheapest being by tipping the hive an inch or so back, and pouring it in at the entrance, a quart or so at a time. But the bottom of the hive must be sealed tight, or the syrup will leak out and cause robbing, which is one of the great dangers in feeding. But whatever method is employed in giving the food, it should always be given just at night, so that the bees may have it all taken up by morning. A far better way for Fall feeding is by a suitable feeder to set on top of the hive, and give the food all at one time, which saves much work, and avoids robbing. With five or six such feeders many colonies may be fed in a short time.

Shallow rims, of 2 or 3 inches in depth, and the size of the hive, placed between the hive and the bottom-board, we regard as very necessary in cellar wintering. They should have a full $\frac{3}{4}$ -inch entrance left in them next to the bottom-board, and the entire length of the front of the hive. Or $\frac{3}{4}$ -inch blocks may be placed under the corners. A

larger space may let in mice. Some of the most successful bee-keepers remove the bottom-board from their hives when placed in the cellar. The first tier of hives is set upon scantlings 12 inches from the cellar bottom; the hives $\frac{3}{4}$ of their length apart, and the next tier on top of these, and directly over the openings in the first row; the third tier on top of the second in the same way. This may be continued to any convenient height. In wintering on the bottom-boards, common straw-board building paper makes a first-class cover for hives. Cut the paper one inch larger than the top of the hive, place on top and fasten down to edge of hive by tacking on small strips of wood. No upper ventilation should be given.

In outdoor wintering the hives are left on the summer stands, separately or in long rows. An outer case made of cheap boards is placed around them, 6 or 8 inches from the hives, and this space filled with chaff or sawdust, with an opening properly made for the bees to fly out on warm days. The packing should be 8 inches thick under and over the hives, and covered with a rain-proof roof. We would never advise wintering outdoors, in this climate, if a suitable cellar is within reach.—*Farm, Stock and Home.*

Thick Top-Bars and Honey-Boards.

FRANK COVERDALE.

Much has been written during the past two years about thick top-bars to brood-frames, the object being to do away with wood-zinc honey-boards. I would say to those who have top-bars $\frac{1}{4}$ inch thick, and zinc honey-boards: Stick to them, for you will find nothing better.

While the thick top-bars are good, and will answer the purpose for which they were designed, or nearly so, they are not queen-excluding, and therefore, we are in need of a queen-excluder, and when it is used on top of these thick top-bars, the sections are some distance away from the combs: First, $\frac{1}{4}$ inch depth of top-bar, $\frac{3}{4}$ inch space, slats on honey-board $\frac{1}{4}$ inch, space above honey-board $\frac{3}{4}$ inch, slats in bottom of section-case $\frac{1}{4}$ inch; all of the above space being devoid of comb. This being the case, on cool nights the bees would have to go down into the brood-chamber. In early Spring, and during the Fall harvest, as a rule, there will be little

danger of too much heat in the section-cases.

If I cannot have a queen-excluder attached, in some form, to thick and wide top-bars, I do not want them. If top-bars are $\frac{3}{4}$ inch wide, and spaced 8 to the foot, with $\frac{1}{4}$ inch space between them and the wood-zinc board, burr-combs will be built in sufficient quantity to afford steps for the bees, clear up to the perforations, so that the zinc excluder is virtually the top of the combs in the brood-chamber.

If $\frac{1}{4}$ inch space is left on top of the honey-board, not a particle of burr-combs will be built there—in fact, everything above the board will be nice and clean; you will be sure that you have not molested the queen; you will not put on your bee-escape, and at times find that your queen was exploring the upstairs.

Again, when bees are but slightly disturbed the queen starts, and may get into the sections, and you might take her into the honey-house, or she might deposit a few eggs in drone-comb built there, for the more you deprive the bees of drone-comb below, the stronger the probability becomes that the queen will enter the sections, for she will find plenty of drone-comb there, if full sheets of foundation are not used.

Of course, the wood-zinc honey-board will be well fastened down, and need not be removed very often. When loose bottom-boards are used, much of the examining can be done from below, by raising one end of the hive body and using a little smoke, and you can see whether there are queen-cells started or not, or if there is any capped brood.

When bees are to be handled most, in Spring, your boards are in the honey-house. Even if the top-bars do sag, all will be nice on top of the honey-board, and should the slats sag in the honey-board, no burr-combs whatever will be built on top.

Then again, $\frac{3}{4}$ inch is just the right space over a wood-zinc honey-board, and $\frac{1}{4}$ inch about right over the wide top-bars, for, of course, we do not expect these heavy top-bars to sag, and the bottom slats in many of our section-cases will sag, and in the center, over these heavy top-bars there will be only room enough to make a safe retreat for a bee moth, but the slats are now being made much thicker.

These light boards occupy but little space in the store room, if piled up carefully, and when in use on the hive you can put on sections of brood-comb, either without brood in to have them filled

with honey for extracting, or containing brood, and have queen-cells built in the upper story, *a la* Doolittle.

Hive a prime swarm in an 8-frame hive, and by using the honey-board the section-case may be placed on the hive at once, whether combs have been built in it or not, and we do not have to wait three days, until the queen has begun laying below. I consider that this one feature makes it profitable for me to use the zinc honey-board.

Welton, Iowa.

Large Apiaries in California.

J. F. M'INTYRE.

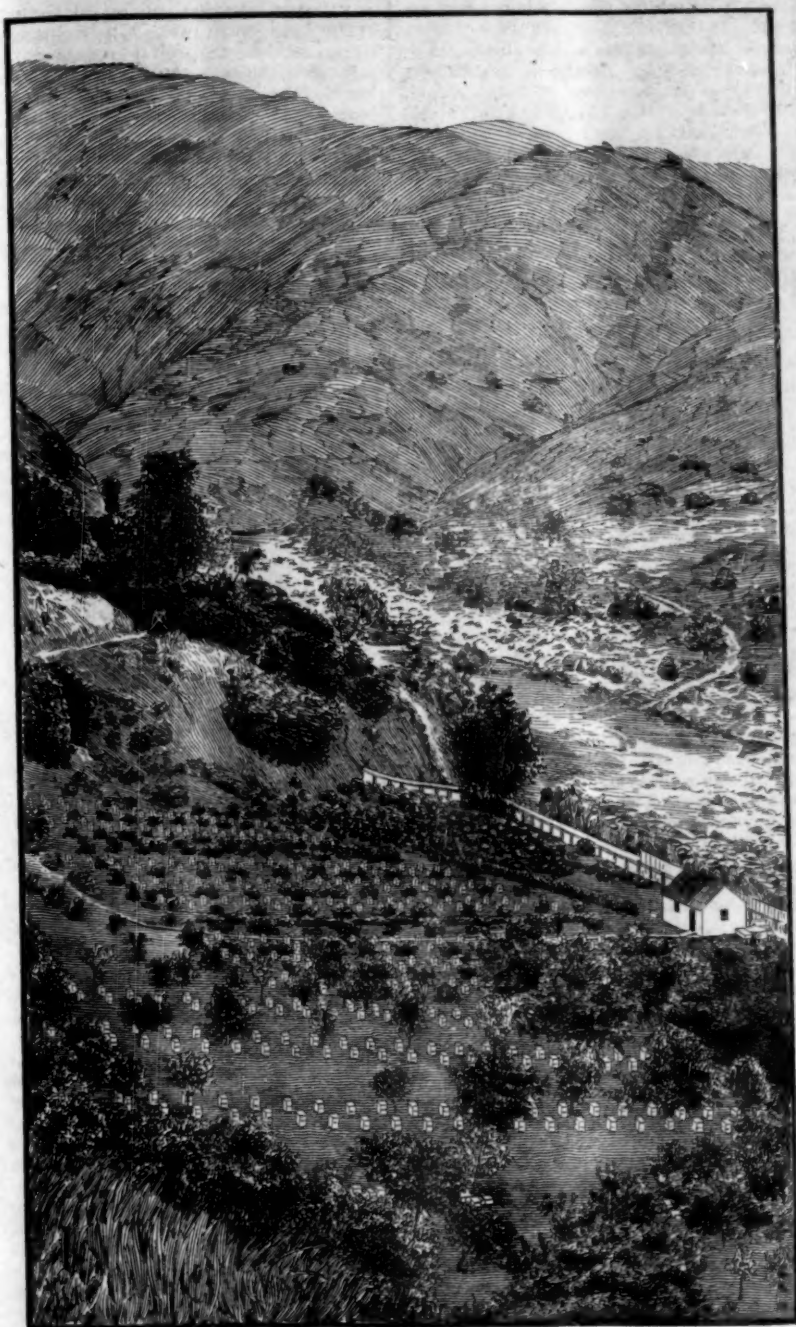
One of the greatest drawbacks in trying to keep about 500 colonies in one apiary is that the bees are bound to get more or less confused, and to enter the wrong hive. I think this is the chief reason why young queens are so often balled at mating time; and in laying off an apiary, I always try to avoid this as much as possible, and still have the apiary convenient to work.

When Mr. Wilkin had 500 colonies on the space occupied by the six double rows in the middle, directly above the honey-house, this confusion was sometimes quite serious. When a swarm came out in the middle of the day, the lost bees would go with the swarm until it was large enough to fill four hives, when they would ball and kill the queen, and in a few days scatter with other swarms, and thus keep the owner in trouble all the time.

That part of the apiary in the orchard pleases me better than any other arrangement of hives I ever tried. It is much better than the grapevines. The trees were originally 18 feet apart each way; but I cut out every other row running up and down the hill, to give the bees a better chance to fly in and out. This gives 36 feet to each double row.

The two hives take 4 feet, and there is a 5-foot space between the backs, to run up and down with the honey-carts, and 27 feet between the fronts, hives 6 feet from center to center in the rows. The bees keep their own hives, and do not work out to the ends of the rows in this orchard part. Queens are not balled, and it is a treat to get into the shade occasionally when taking out honey.

The high board fence is not designed to keep out thieves, but to protect teams and people from the bees. The water over the honey-house, shown in the engraving on the next page, is the Sespe



APIARY OF J. F. MCINTYRE, FILLMORE, CALIF., LOOKING EASTWARD.

Creek, from which the apiary took its name. It is all pure spring water, from the mountains in the background.

The rain falling on the mountains in the Winter passes down through them and runs out at the base all through the long dry Summer, and thus the mountains act as reservoirs on a gigantic scale.—*Gleanings*.

Fillmore, Calif.

[Friend McIntyre has sent us two photographs of his apiaries in the mountains, and we have had engravings made of them, and will present them to our readers. The first one is given on the preceding page, and shows the apiary looking eastward. Another will be given next week, showing the view from the west.—ED.]

The Golden Carniolan Bees.

F. GREINER.

Since Prof. Cook recommended Carniolan bees, a few years ago, this race has gained favor with the American honey-producers. Our observations and experience with these bees seems to corroborate the opinion held by some that the Carniolan bees are only a strain or variety of the common black or German bee.

Mr. Henry Alley appears now to have discovered that the Carniolan bees are the original yellow bees. If this be true, we want it to be known as quickly as possible, as friend J. A. Green observes in the AMERICAN BEE JOURNAL.

Mr. Alley's discovery, it seems to me, is a pretty strong dose for us American bee-keepers to swallow. For my part, I cannot comprehend how it can be possible, within four generations, to breed black bees into yellow ones. Black bees have for years reproduced themselves, even in this country.

Comparatively, it is only a few years since the Carniolan bees made their appearance in this country. Our literature and our experience with them cannot be so very extensive; for this reason I ask bee-keepers to listen to a practical bee-keeper, who lives near the home of the Carniolan bees. He is a scientist, a prominent writer, and an authority on fundamental questions pertaining to our pursuit. It is Mr. W. Vogel, editor of the *Nordlinger Bienen Zeitung*, Germany. The following is an extract from his letter, dated Sept. 18, 1891:

"There can be no doubt that Mr. Alley's golden Carniolan bees were produced by his Carniolan queens-mating with drones from the Italian or Cyprian race. The assertion that the Carniolan bees are the original yellow bees has not the shadow of a foundation.

"I have watched the Carniolan bees in their native land, and *there they are not golden!* I have also kept the Carniolan bees for years.

"It is true that some Carniolan queens produce worker-bees (one in 50 perhaps) that show a reddish spot on their first band; but this is not a peculiarity of the Carniolan bees only. The same occurs with our black bees, and did occur before any Italian blood was introduced here. I regard the Carniolan bee as being a strain of the common black or German bee."

The original of Vogel's letter is in my hands for inspection, and can be published if desired by permission of the author.

Naples, N. Y.

Some Facts About Punic Bees.

E. L. PRATT.

On page 424 it is said that "Punic bees are getting some hard blows from good apiarists." Well, this was expected.

As soon as I made it known that I had imported these bees into America, the blows started from all quarters, just as they always have when anything new is introduced, mostly from persons who have never seen a Punic bee.

What effect will this have on the real value of the bee in question? Will it in the least injure their valuable traits?

I will admit that it may influence a few would-be-customers for one or more queens, and that is all. That the Punic bees are entirely different from any bees ever brought to this country is unquestionable, and for that reason, taken with the valuable traits they possess, Punic queens will be in demand another season.

Mr. W. Johnson wrote to a brother who lives near Sheffield, England, and was told that Punic bees were "nothing but small black bees; have no wonderful traits," and he wonders why "Americans are so gullible."

Perhaps I can explain this, as I was the so-called "gulled (?) American." I was so "gullible" because the Punic bees were far ahead of any bees ever

brought to this country, in many of the points that are requisite to successful bee-keeping, for pleasure or profit. The Punic colonies in my yard to-day are in better condition than all the others. I did not feed them, yet they are heavy.

It has been said that Punic bees were not advertised in the English bee-periodicals, but this is a mistake. They were advertised last year, and would have been this year if the *British Bee Journal* had not refused to insert the advertisement.

The Punic stock in Mr. W. B. Carr's apiary, in the Spring of 1890, was the "best and strongest" he had. (See *Record*, an English bee-periodical, for June, 1890.)

In answer to Mr. Lowmaster, in a late number of the *British Bee Journal*, they say that they know nothing about the Punic bees, *Apis niger*. In that same periodical for June 5, 1890, page 271, is a mention of Punic bees, and where they came from. (See also *British Bee Journal* for May 29, 1890.) Why? Simply because Messrs. Cowan and Carr did not know that Punic bees were so hard to obtain from their native clime.

The English *Journal of Horticulture* has several times contained long accounts of the Punic bees. These bees are standing well in the estimation of all who have tried them, thus far, in America, and it does seem as if we at last had a "dollar-and-cent" bee. They are the greatest workers I ever saw. A "fair trial" should be given them.

Beverly, Mass.

Wintering Bees on Summer Stands.

C. W. COSTELLO,

When bees are wintered on summer stands, if the entrances become clogged, and they try to fly and find themselves confined, they are apt to worry themselves into a diseased condition. To keep the entrances open and clear of dead bees and snow, I put a frame or rim, the same size as the hive and 4 inches deep, between the brood-chamber and the bottom-board. If there is no entrance in the hive-body, one $\frac{3}{4}$ x 3 inches should be cut in the top edge of the rim. This arrangement is simple, works to perfection, and is adapted to all hives having a movable bottom.—*Exchange*.

Do Not Forget the meeting of the Northwestern Convention, on Nov. 19.

CONVENTION DIRECTORY.

Time and place of meeting.

1891.
Nov. 19, 20.—Northwestern, at Chicago, Ills.
W. Z. Hutchinson, Sec., Flint, Mich.
Dec. 31.—Michigan State, at Grand Rapids.
Geo. E. Hilton, Sec., Fremont, Mich.
Dec. 8, 11.—North American, at Albany, N. Y.
C. P. Dadant, Sec., Hamilton, Ills.

In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—P. H. Elwood....Starkville, N. Y.
SECRETARY—C. P. Dadant.....Hamilton, Ills.

National Bee-Keepers' Union.

PRESIDENT—James Heddon...Dowagiac, Mich.
SEC'Y AND MANAGER—T. G. Newman, Chicago.

Bee and Honey Gossip.

Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Almost a Failure.

The season in this locality has been very discouraging to bee-keepers, the honey crop being almost an entire failure. Bees in general have stored enough honey to carry them through the Winter.

G. M. WHITFORD.
Arlington, Nebr.

Peculiar Season.

The season just closed has been a peculiar one for bees. In the Spring they started in with a rush on cherry, maple, and apple bloom; swarmed freely during white clover bloom, and stored some white honey. Then buckwheat came in bloom, and for a week the honey came with a rush. But a change occurred, and during the balance of the bloom the weather was cool and rainy. Fall flowers were a failure as far as honey was concerned. To sum up, the surplus is but little, stores short for Winter, and mostly old bees to Winter. Apples being plenty, the cider mills are running every day, the bees are destroyed by the thousand, and cider stored for Winter food. Still, I hope for the best, and next Spring will tell the tale of the results of the past season.

H. H. BROWN.
Light Street, Pa., Oct. 10, 1891.

Northwestern Convention.

Will each one who expects to be at the Chicago convention please send in his or her name in advance? Put me down as one. It will help us about getting acquainted, and to know beforehand who will be there, and then we like to know, you know. Of course, I mean to have the names printed in the AMERICAN BEE JOURNAL.

C. C. MILLER.

Marengo, Ills.

[This is a good idea, and we shall be glad to have each one who expects to be present, to send us the name *at once*, so that we can know how many to provide for at the Commercial Hotel.—Ed.]

Honey from Asters.

We are having a spell of rainy weather, which shuts my busy little pets up in their hives at a time when, if they could fly, they would be carrying in big loads of honey. We have had fine weather up to three days ago, and our bees made good use of the time gathering honey from the aster, which is abundant in our county, and is now in full bloom, and if the weather will turn warm, so that our bees can finish up their Summer's work on the aster, we will have a good lot of honey for ourselves, and have plenty in store for the bees this Winter and next Spring. If this wonderful honey-producing weed—the aster—would bloom in June or July, when the days are long, and the weather warm, and the hives brimful of bees, I believe it would be the best honey plant in the United States. One good thing about the aster coming late as it does, is that light frost does not hurt the bloom. I have seen everything white with frost in the morning, and by noon the bees would be gathering honey from the aster in full force.

JOHN D. A. FISHER.

Faith, N. C., Oct. 13, 1891.

Bees in Winter Quarters.

Have put my bees into Winter quarters, in good condition. They gathered no Fall honey, and did not give me 10 pounds of surplus. I took second premium on comb-honey, and first and second premiums on extracted-honey, first and second premiums on beeswax, first and second premiums on foundation, and first premium on supplies, at the Grayville District Fair.

Carmi, Ills.

IRA REEVES.

Sugar Syrup in the Sections.

MESSRS. NEWMAN:—I was very much displeased to see my communication to you, in regard to Mr. Lowrey, of Vermont, come out in the AMERICAN BEE JOURNAL. I did not intend it to be published. I am aware that I did not make any statement to that effect, for I trusted to your good judgment not to do such a thing. Further, I am quite sure that I offered to send you a sample of the honey if you desired to investigate. My judgment may have been at fault, and I should not like to condemn a man before the public on the strength of my sense of taste. I desire to apologize to Mr. Lowrey through the columns of the AMERICAN BEE JOURNAL. Be he guilty or not, and I now believe that I was mistaken in the matter, it was an insult to the gentleman to bring his name so notoriously before the public. Please print the whole of this letter.

Yours truly, ALLEN LATHAM.
Cambridge, Mass., Oct. 18, 1891.

[Like thousands of other letters we receive, Mr. Latham's had nothing upon it to indicate whether it was intended for publication or not. We deemed it a note of warning about feeding sugar syrup where there was danger of its being carried into the sections, and then being sold for honey. We cheerfully give Mr. Latham's letter above in *extenso*. It is a pity that he should have written on Sept. 30 what required him to say on Oct. 18, "I now believe that I was mistaken in the matter." Davy Crockett's advice is very appropriate here: "Be sure you are right, then go ahead."

Since the above was in type, we have received a letter from Mr. Lowrey, from which we extract the following:

I say that consistency is a jewel, and adulteration a fraud. I can state truthfully, if it were my last words, before God and man, I never placed upon the market any adulterated honey, or maple sugar or syrup, all of which I produce. I am not afraid to stand back of any of my goods as to purity. I do my best to have them of the best quality possible. There is probably not a stronger advocate or defender of pure food than myself, so far as I am able to do it; and for any one to claim that my honey is adulterated seems next to impossible. I

will warrant my honey to be pure bees' honey, every time.

But "Where ignorance is bliss, it is folly to be wise." Where adulteration abounds, all, even the most innocent, are liable to be suspected. In Vermont we have a very stringent law against adulteration of maple sugar and syrup, and bees' honey. Were I called upon to alter or amend the present law, I would say, if possible make the law more stringent, and double the already large penalty.

With malice towards none, but charity for all, even the most ignorant and abusive to our business, I remain,

Yours sincerely,

Jericho, Vt. OLIVER J. LOWREY.

In our remarks on Mr. Latham's letter, on page 500, we remarked thus about feeding sugar syrup to the bees when and where they might store it in the sections:

If Mr. Lowrey has inadvertently permitted this, he should at once recall that unsold, and thus remedy, as far as possible, the evil effect of such a transaction. If he has not done it intentionally, the readers of the BEE JOURNAL would be glad to hear from him.

We are glad to receive and print Mr. Lowrey's letter. He shows the right spirit and principle, and reiterates that oft-repeated expression—"adulteration is a fraud!" He not only knows that his honey and syrups are genuine, but is quite willing to back them up as such. We are now glad that attention was called to the matter, for it has shown us a strong advocate of pure food and its protection by law.

We should not blame friend Latham, either. He found honey the flavor of which was not familiar to him. He had known of a transaction in Worcester, Mass., of feeding sugar syrup to bees and letting them store it in the sections, and of having it take all the prizes at the New England Fair. He was suspicious of the strange-flavored honey, wrote the letter printed on page 500, and offered to send us a sample of the honey. The distance was so great, and several of such samples of comb-honey lately sent to us had been all smashed

up in transit, so we printed the letter without further thought, omitting the reference to the sample.

The incident has been harmless—Messrs. Latham and Lowrey are better known, and as both are laboring for the protection of food from adulteration, they may congratulate themselves upon new acquaintance, and form more solid friendship.—Ed.]

Preparation of Bees for Winter.

October forage is now entirely exhausted in most localities, and colonies which are rather light should either be fed, or have surplus honey from other colonies given to them. The extracting cases should be removed previous to colder weather, to prevent bees clustering in them and starving. These cases must be piled up carefully in the coldest room of your honey-house, safe from mice. The exact condition of every colony should be ascertained now, and if any are queenless, the colony should be broken up. Small colonies ought to be promptly united. The honey selling season is now at hand, and from this time until after the holidays, the producer must look for a honey market. He should not rely on sales in large cities, for they are always crowded, but a home market must be cultivated.

J. W. MINOR.

Roxbury, Conn., Oct. 18, 1891.

Michigan State Convention.

To-day finds me at the beautiful home of L. C. Woodman, four miles west of the city of Grand Rapids. I am to make the preliminary arrangements at Grand Rapids for our State convention. I was entirely successful, having secured a very pleasant room to hold our meeting in, on the first floor of the "Eagle Hotel," and I have secured reduced rates, \$1.25 per day, and the use of the hall thrown in. This hall is something that all who come here will appreciate. It is easy of access, well lighted, beautifully finished, and furnished with tables and easy chairs. The hotel is centrally located, and one of the best in the city. Friend Woodman is a horticulturist and bee-keeper. He has two yards of something over 100 colonies, and about 60 acres of bearing fruit trees. He has just finished marketing 1,700 bushels of peaches, and I do not know how many pears, plums, apples, grapes, apricots,

etc. Yes, apricots in Michigan. If you sat where I now do, you could look out on a bearing apricot orchard, and I shall not be surprised if at our convention we may sometimes drift into horticulture. I think it will not hurt us, if we do. There are a great many around here that are interested in both.

GEO. E. HILTON.

Grand Rapids, Mich., Oct. 21, 1891.

One-Fourth of an Average.

This is my fourth year in bee-keeping, and in that time I have had two poor seasons, and this is one of them. The honey crop in this county will be about one-fourth of an average. One cause of the poor crop was continued rains during white clover bloom.

JOHN W. POLSLEY.

Wahoo, Nebr.

Bees in Good Condition for Winter.

I bought a colony of bees one year ago. They were in the American hive, and wintered well. They increased to 4, and gave me a surplus of 90 pounds of comb-honey. They are in good condition for Winter, with plenty of stores. The Summer has been very cool here, especially the nights. Golden-rod was the principal honey plant here this year. The AMERICAN BEE JOURNAL is a regular and welcome visitor every Friday morning.

J. W. PETERSON.

Grand Island, Nebr., Oct. 22, 1891.

Convention Notices.

The Northwestern Bee-Keepers' Society will hold its annual convention at the Commercial Hotel, corner of Lake and Dearborn Streets, in Chicago, Ill., on Thursday and Friday, Nov. 19 and 20, at 9 a.m. Arrangements have been made with the Hotel for back room, one bed, two persons, \$1.75 per day, each; front room, \$2.00 per day for each person. This date occurs during the Exposition, when excursion rates on the railroads will be one fare for the round-trip.

W. Z. HUTCHINSON, sec., Flint, Mich.

The Executive Committee have fixed the date of the next session of the North American Bee-Keepers' Association, Dec. 8 to 11, at Albany. There will be an informal meeting on the evening of Tuesday, Dec. 8, for getting acquainted, etc. The real work of the convention will commence Wednesday morning, and extend through two full days, ending Friday morning, giving distant delegates time to get home before Sunday. We want all to get there if possible on Tuesday. If they have a few hours of daylight it will give an opportunity to look around the city, view the capitol building, etc. Reduced rates have already been secured in all trunk-line territory, and the same is expected over other railroads. The programme is now under way, and other arrangements are nearly completed. If you have decided to take a vacation that will, we trust, be profitable, don't fail to attend this convention.

P. H. ELWOOD, Pres., Starkville, N. Y.
C. P. DADANT, Sec., Hamilton, Ills.

Wavelets of News.

House Apiaries.

The last *Bee-Keepers' Review* is an excellent number. It discusses the subject of house apiaries. In our judgment, the best article on the topic is from the pen of James Heddon, and it covers every point. Among other good things, he says: "Never let any one advocate the use of any hives, frames, cases, or brood-chambers that are fixed within the building."

You are quite correct, Mr. Heddon; and you might have added that they prevent the bees from escaping into the room, for all outside hives are supposed to be bee-tight. One great reason why the house apiary was abandoned, was because the hives or compartments for holding the frames are fixed to the sides of the building, and it is not easy to make these so they are bee-tight.

Again he adds: "The annoyance from robbers is the one great cause of irritability among the bees of an apiary; and I want to tell you that, if you have a colony that is so confoundedly mean that you expect to be stung, even when using the smoker, put them in the house apiary and the bees will behave perfectly." I have noticed this very thing myself; and, in fact, it is a very rare thing indeed for bees to sting inside of a building. To suddenly find themselves indoors takes all the fight out of them.

In winding up, Mr. Heddon concludes: "On the whole, I think the house apiary, when rightly made and managed, is, in many localities, a thing of comfort and profit. It is an easy thing to pack colonies in for Winter; and after being packed, I can see what splendid advantages can be gained from stove heat during extremely cold weather."—*Gleanings*.

Cheap Ice House.

Ice in Summer is both a luxury and a necessity, and the ice-crop is one that many farmers allow to go to waste.

Use 2x6 sills and plates, with 12 foot posts, with three courses 2x4 ribbing all around three feet apart, put in edge-wise. Ceil with culls put on vertically, and make it a point to always get out of lumber when you get to the eaves, so the gable end will be sure to be left open. Fill up the ground inside a little higher than the outside, then put down any old old chunks of rails or joist, a little distance apart, and fill in between and

cover over with a foot of sawdust, or its equivalent in straw or prairie hay.

Put your ice 16 inches away from the wall, and fill between the ice and wall with sawdust or its equivalent in straw or prairie hay, as you fill with ice. Break joints over each course of ice when filling.

When filled, cover with 6 or 7 inches of sawdust or its equivalent. You do not want 10 or 12 inches of sawdust on top of the ice. There is a latent heat in ice, and if there is too much covering on the top, the heat will not be able to pass up through it and will turn back and honeycomb the ice. With a covering of 12 inches of sawdust, in every case an examination will show heat during the hot months by digging down a few inches.

Never put water on your ice as you fill your ice house, if you expect to remove the cakes of ice as put in. In cold-storage houses it is often the case that water is used to solidify the mass. In such cases use hot water with a sprinkler, as the moment the hot water comes in contact with the ice it congeals. Use cold water and it will run and spread, and if the ice is put in contact with the walls the chances are that in freezing it will spread the building.

The roof may also be covered with culis. Suppose it does leak, the dripping will not extend down into the sawdust to any appreciable extent. A ventilator in the roof is not necessary, with both gables open.—CHAS. P. JACKSON, in the *American Creamery*.

Sexes of Trees.

As a general rule the sexes of both our forest and cultivated trees are only to be determined when the trees are in bloom for the pistillate and staminate flowers are produced either in the same cluster, raceme, bunch, or only separate on the same twig or branch, while in the wild cherries, apples, papaw and similar fruit the organs of both sexes are to be found in each individual flower.

The long catkins of the chestnut, oak, hickory and butternut are the staminate (male) flowers, while the pistillate are small and quite inconspicuous, always situated at the apex of the embryo nut.

In the common red, white and sugar maples, both sexes are in the same crowded umbel-like cluster, inconspicuous at first, but soon the pistillate flowers enlarge and become a two-winged fruit or seed.

But in the box-elder or negundo maple we have a very different arrangement,

for the two sexes are not only in separate flowers, but on different trees, and for this reason the species is said to be dioecious—that is, stamens and pistils in separate flowers on different plants.

In the negundo maple the staminate flowers are in small clustered pedicels, while the pistillate are in long drooping racemes, and the two sexes on different trees. Those bearing seeds are of course pistillate (female), but there is no way of distinguishing the sexes of the trees except when in bloom, or bearing seed.

—A. S. FULLER, in the *N. Y. Tribune*.

Native Bees in India.

As to the tiny bee of Australia, referred to as *Trigona carbonaria*, I met that bee, or one very like it, in the Central Provinces in India. The manner of our meeting was in this wise: I was leaving my bungalow for a time, and went around to see that its doors and shuttered windows were properly secured before starting. Finding a window with its shutters left open—glass was not used—I hastily slammed it, and a small swarm of *Trigona carbonaria*, or a near relative, flew in my face.

I have never had a shovelful of hot ashes thrown in my face, but the sensation suggested it; and the stings tingled and smarted for a long time. I was much struck by the minute proportions of my assailants, which were, as you say, a little smaller than a house-fly, and their Lilliputian comb was elegance itself.—AMANISHAH, Bideford, in *British Bee Journal*.

Just What You Need!

The Convention Hand-Book

is very convenient at Bee-Conventions. It contains a simple Manual of Parliamentary Law and Rules of Order for Local Bee-Conventions; Constitution and By-Laws for a Local Society; Programme for a Convention, with Subjects for Discussion. In addition to this, there are about 50 blank pages, to make notes upon, or to write out questions, as they may come to mind. They are nicely bound in cloth, and are of the right size for the pocket. We will present a copy for one new subscription to the BEE JOURNAL (with \$1.00 to pay for the same), or 2 subscribers to the HOME JOURNAL, may be sent instead of one for the BEE JOURNAL.

**ADVERTISING RATES.**

20 cents per line of Space, each insertion.

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Advertisements intended for next week must reach this office by Saturday of this week.

ALFRED H. NEWMAN,

BUSINESS MANAGER.

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☞ Subscribers who do not receive their papers promptly, should notify us at once.

☞ Send us *one new* subscription, with \$1.00, and we will present you with a nice Pocket Dictionary.

☞ The date on the wrapper-label of this paper indicates the end of the month to which you have paid. If that is past, please send us a dollar to pay for another year.

☞ Systematic work in the Apiary will pay. Use the Apiary Register. It costs:

For 50 colonies (120 pages) \$1 00
" 100 colonies (220 pages) 1 25
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☞ As there is another firm of "Newman & Son" in this city, our letters sometimes get mixed. Please write *American Bee Journal* on the corner of your envelopes to save confusion and delay.

CLUBBING LIST.

We Club the *American Bee Journal* for a year, with any of the following papers or books, at the prices quoted in the **LAST** column. The regular price of both is given in the first column. One year's subscription for the *American Bee Journal* must be sent with each order for another paper or book:

Price of both. Club.

The American Bee Journal.....	\$1 00....	
and Gleanings in Bee-Culture.....	2 00....	2 75
Bee-Keepers' Guide.....	1 50....	1 40
Bee-Keepers' Review.....	2 00....	1 75
The Apiculturist.....	1 75....	1 65
Canadian Bee Journal.....	1 75....	1 65
American Bee-Keeper.....	1 50....	1 40
The 7 above-named papers.....	6 00....	5 00
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Cook's Manual (1887 edition).....	2 25....	2 00
Quinby's New Bee-Keeping.....	2 50....	2 25
Doolittle on Queen-Rearing.....	2 00....	1 75
Bees and Honey (Newman).....	2 00....	1 75
Blinder for Am. Bee Journal.....	1 00....	1 50
Dzierzon's Bee-Book (cloth).....	3 00....	2 00
Root's A B C of Bee-Culture.....	2 25....	2 10
Farmer's Account Book.....	4 00....	2 20
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A Year Among the Bees.....	1 50....	1 35
Convention Hand-Book.....	1 50....	1 30
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Do not send to us for sample copies of any other papers. Send for such to the publishers of the papers you want.

When talking about Bees to your friend or neighbor, you will oblige us by commending the *BEE JOURNAL* to him, and taking his subscription to send with your renewal. For this work we will present you with a copy of the *Convention Hand-Book*, by mail, postpaid. It sells at 50 cents.

Bee-Keeping for Profit, by Dr. G. L. Tinker, is a new 50-page pamphlet, which details fully the author's new system of bee-management in producing comb and extracted-honey, and the construction of the hive best adapted to it—his "Nonpareil." The book can be had at this office for 25c.

Supply Dealers should write to us for wholesale terms and cut for Hastings' Perfection Feeders.

YOU NEED an Apiary Register, and should keep it posted up, so as to be able to know all about any colony of bees in your yard at a moment's notice. It devotes two pages to every colony. You can get one large enough for 50 colonies for a dollar, bound in full leather and postage paid. Send for one before you forget it, and put it to a good use. Let it contain all that you will want to know about your bees—including a cash account. We will send you one large enough for 100 colonies for \$1.25; or for 200 colonies for \$1.50. *Order one now.*

The Bee-Keepers' Directory, by Henry Alley, Wenham, Mass. It contains his method for rearing queens in full colonies, while a fertile queen has possession of the combs. Price by mail, 50 cents.

If you have a desire to know how to have Queens fertilized in upper stories, while the old Queen is still laying below—how you may *safely introduce* any Queen, at any time of the year when bees can fly—all about the different races of bees—all about shipping Queens, queen-cages, candy for queen-cages, etc.—all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know, send for "Doolittle's Scientific Queen-Rearing," a book of 170 pages, which is nicely bound in cloth, and is as interesting as a story. Price, \$1.00. For sale at this office.

A Nice Pocket Dictionary will be given as a premium for only one new subscriber to this JOURNAL, with \$1.00. It is a splendid little Dictionary—just right for the pocket. Price, 25 cents.

Binders made especially for the BEE JOURNAL for 1891 are now ready for delivery, at 50 cents each, including postage. Be sure to use a Binder to keep your numbers of 1890 for reference. Binders for 1890 only cost 60 cents, and it will pay you to use them, if you do not get the volumes otherwise bound.

The Honey-Bee; Its Natural History, Anatomy, and Physiology. By T. W. Cowan, editor of the *British Bee Journal*, illustrated with 72 figures and 136 illustrations. \$1.00. For sale at this office.

Calvert's No. 1 Phenol, mentioned in *Cheshire's Pamphlet* on pages 16 and 17, as a cure for foul-brood, can be procured at this office at 25 cents per ounce, by express.

Please send us the names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you.

Red Labels are quite attractive for Pails which hold from 1 to 10 lbs. of honey. Price, \$1.00 per hundred, with name and address printed. Sample free.

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HONEY AND BEESWAX MARKET.

NEW YORK, Oct. 23.—Demand is limited, and supply sufficient. We quote: Comb—Fancy white, 1-lb., 14@15c; 2-lb., 12@13c; off grades, 1-lb., 12@13c; 2-lb., 11@12c; buckwheat, 1-lb., 10@11c; 2-lb., 9c. Extracted—Basswood, white clover and California, 8½@7c; orange bloom, 7@7½c; southern, 6@70c per gal., as to quality. Beeswax, steady, 25@27c.
HILDKRETH BROS. & SUGELKEN,
28-30 West Broadway.

KANSAS CITY, Oct. 24.—The demand is good, and supply fair. We quote: White comb, 15@16c; dark, 10@12c. Extracted, white, 7@7½c; dark, 5@6c. Beeswax, is in light supply, and demand good, at 23@26c.

CLEMONS, MASON & CO.,
Cor. 4th and Walnut Sts.

CINCINNATI, Oct. 24.—Demand is only fair, with good supply. We quote: Choice comb, 14@16c. Extracted, 5@8c. Beeswax is in fair demand and good supply, at 23@25c for good to choice yellow.

C. F. MUTH & SON,
Cor. Freeman & Central Aves.

NEW YORK, Oct. 23.—Demand for honey is increasing, but is exceeded by supply. We quote: Fancy 1-lb. comb, 15@16c; 2-lb., 14c; fair, 1-lb., 13@14c; 2-lb., 13c. Extracted—California, 7c; clover and basswood, 7@7½c. Beeswax—in fair demand, with adequate supply, at 25@27c.

CHAS. ISRAEL & BROS., 110 Hudson St.

CHICAGO, Oct. 26.—The demand is good for fancy white comb-honey, and all such is selling at 16c; other grades, 14@15c. Extracted, 7@8c. Beeswax, quick sale, at 26@27c.

S. T. FISH & CO., 189 S. Water St.

KANSAS CITY, Oct. 24.—Demand for honey good, with light supply. We quote: Comb—1-lb. white, 16c; dark, 12c; 2-lb. white, 15c; dark, 10c. Extracted—white, 7@7½c; dark, 5@6c. Beeswax, supply and demand light, at 25@27c.

HAMBLIN & BEARSS, 514 Walnut St.

DETROIT, Oct. 24.—The demand for comb-honey is fair and supply small. We quote: Comb, 12@13c; extracted, 7@8c. Beeswax in good supply, and light demand, at 25@26c.

M. H. HUNT, Betu Branch, Mich.

CHICAGO, Oct. 26.—The demand is slow for 1-lb. comb-honey, with good supply. We quote: Choice white comb, 14@16c. Extracted, 6@8c. Beeswax, in light supply, and demand slow, at 27c.

J. A. LAMON, 44-46 S. Water St.

ALBANY, N. Y., Oct. 23.—Demand improving; supply moderate. We quote: White comb, 12@17c. Extracted, 6@8c. Beeswax, scarce and in good demand at 26@28c.

H. R. WRIGHT, 320-328 Broadway.

NEW YORK, Oct. 23.—Demand good, with fair supply. We quote: No. 1 comb, 18c; No. 2, 13@14c. Extracted—California, 7@7½c; basswood, 7½@8c; southern, 6½@70c per gal. Beeswax, supply and demand fair, 26½@27c.

F. G. STROHMEYER & CO., 122 Water St.

SAN FRANCISCO, Oct. 21.—Demand good, supply small. We quote: Comb, 1-lb., 10@13c. Extracted, 5½@6c. Beeswax, in light supply and good demand, at 24@25c.

SCHACHT, LEMCKE & STEINER,
16 Drumm Street.

CHICAGO, Oct. 24.—Demand is now good, supply is not heavy. We quote: Comb, best grades, 15@16c. Extracted, 6@8c. Beeswax, 26@27c.

R. A. BURNETT, 161 S. Water St.

BOSTON, Oct. 23.—Demand is good, supply ample. We quote: 1-lb. fancy white comb, 15@16c; extracted, 7@9c. Beeswax, none in market.

BLAKE & RIPLEY, 57 Chatham St.

MILWAUKEE, Oct. 24.—Demand not very brisk; supply good, and of better quality. We quote: Comb—choice, 1-lb., 15@16c; fair, 13@14c; dark, 10@12c. Extracted—white, in barrels or kegs, 7@7½c; dark, 6@6½c. Beeswax, 25@28c.

A. V. BISHOP, 142 W. Water St.

NEW YORK, Oct. 23.—Demand active, and supply increasing by large arrivals. We quote: Fancy 1-lb. comb, 14@17c, depending on quality; 2-lb. sections, 2c less. Extracted—White clover and basswood, 6@8c, and supply not equal to the demand. Beeswax—the supply is not equal to the demand, which is brisk, at 26@29c, as to quality.

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We Club the American Bee Journal and the Illustrated Home Journal, one year for \$1.35. Both of these and Gleanings in Bee Culture, for one year, for \$2.15.

Very Punctual.—I was surprised to receive the feeder as soon as I did. I like it very well. I receive mail matter in a shorter time from you than from Carlisle, O., only eight miles from here.

JOHN H. ROHRER.

Tippecanoe City, O., July 16, 1891.

The Union or Family Scale has been received, and I am much pleased with it.

W. H. KIMBALL.

Davenport, Iowa.

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Under this heading, Notices of 5 lines, or less, will be inserted at **10 cents per line**, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

WANTED-TO EXCHANGE—New steel-point, foot-power mandrel, 2 7-inch saws, vegetable seeds, for World Typewriter or offers. G. M. WHITEFORD, Arlington, Neb.

WANTED-TO BUY—10,000 pounds choice comb-honey. Address B. WALKER, Capac, Mich., or Glen Haven, Wis. 18Att

WANTED-HONEY—I wish to purchase 1,000 pounds of basswood or clover Extracted-Honey. Would be pleased to receive price delivered here. State kind of package. 17A2t P. P. CARTER, Scranton, Pa. 17A2t

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The engraving shows STRAIGHT TIN PAIS, of which there are 3 sizes, holding respectively 3, 5 and 10 lbs. of Honey. Assorted Samples of the 3 sizes will be sent by express for 40 cts. In quantities, the prices are:

	Per doz.	Per 100
Gallon... holds 10 lbs ..	\$1.20...	\$12.00
½-Gallon, holds 5 lbs....	1.50...	9.00
Quart, holds 3 lbs	1.20...	7.00

The second engraving represents THE TAPERING TIN PAIS—made heavier and stronger than those with straight sides. The covers are deeper, and the top-edge of the Pail is doubled over, making it smooth and convenient to handle. Of the Tapering Pails there are five sizes, viz: 1-lb., 4-lb., 7-lb., 13-lb., and 25-lb. Assorted Samples of these will be shipped by express for 75 cents. In quantities, the prices are as follows:

	To hold 1-lb.	4-lbs.	7-lbs.	13-lbs.	25-lbs.
Per dozen, \$.75...	\$1.25...	\$1.50...	\$2.00...	\$3.25
Per 100,	5.00...	8.00...	10.00...	14.50...	23.00

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17A-5Mtf



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AND
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